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ABSTRACT

The project was designed to develop the procedures necessary to conduct inservice education programs cooperatively with state associations, based on the belief that classroom teachers (1) are able to plan and conduct inservice education programs designed to improve classroom instruction, and (2) are more receptive to educational change and new ideas when they originate through an educational group they control. The project was conducted in two phases: an initial planning conference of representatives from industrial arts state associations and five regional pilot programs. At the planning conference 21 states presented ideas and plans they felt could produce significant inservice education in their state. Five were chosen: (1) Technical Competencies--Colorado, (2) Student Involvement--Florida, (3) Classroom Management Competencies--Georgia, (4) Leadership Development Competencies--Oregon, and (5) Curriculum and Professional Competencies--Pennsylvania. Each of the programs is described and evaluated and recommendations are included. (GR)

Final Technical Report
For Advanced Study
EPDA Developmental Project
In Industrial Arts

Effecting Attitudinal Changes in Industrial Arts Education

American Industrial Arts Association
Appalachian State University
December, 1968 — October, 1969

FINAL TECHNICAL REPORT

ON THE

EPDA DEVELOPMENTAL PROJECT FOR

ADVANCED STUDY IN INDUSTRIAL ARTS

CONTRACT NUMBER

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AMERICAN INDUSTRIAL ARTS ASSOCIATION
APPALACHIAN STATE UNIVERSITY

December, 1968 - October, 1969

Submitted by:

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TABLE OF CONTENTS

INTRODUCTION..... 1

PROGRAM ORGANIZATION AND DISTRIBUTION..... 2

OBJECTIVES..... 4

INITIAL PLANNING CONFERENCE..... 5

PROGRAM DESCRIPTION AND EVALUATION..... 8

Technical Competencies - Colorado..... 8

Evaluation and Recommendations for the Future..... 10

Student Involvement - Florida..... 13

Evaluation and Recommendations for the Future..... 15

Classroom Management Competencies - Georgia..... 16

Evaluation and Recommendations for the Future..... 18

Leadership Development Competencies - Oregon..... 18

Evaluation and Recommendations for the Future..... 23

Curriculum and Professional Competencies - Pennsylvania..... 25

Evaluation and Recommendations for the Future..... 27

Part I - Coordinators Evaluation..... 27

Part II - Participant Evaluation..... 28

Part III - Future Needs..... 44

SUMMARY AND RECOMMENDATIONS..... 47

Technical Competencies - Colorado..... 48

Student Involvement - Florida..... 48

Classroom Management Competencies - Georgia..... 48

Leadership Development Competencies - Oregon..... 49

Curriculum and Professional Competencies - Pennsylvania..... 49

Evaluation and Recommendations for the Future..... 50

APPENDICES..... 52

Appendix A - Copy of Letter to State Associations..... 53

Appendix B - Attendance at Initial Planning Conference..... 57

Appendix C - Pilot Study-Personnel and Initial Letter of Invitation - Colorado..... 60

Appendix D - Agenda - May 10, 1969 Colorado Meeting..... 64

Appendix E - Directions to Team Leaders - Colorado..... 66

Appendix F - Evaluation Letter and Enclosures - Colorado..... 68

Appendix G - Evaluation Sheet and Questionnaire - Colorado..... 73

Appendix H - Conference Program - Georgia..... 75

INTRODUCTION

This pilot project continued to investigate the possibility of professional teacher's association assuming a major role in the inservice education of teachers. An institute conducted under NDEA Title XI by Appalachian State University and the American Industrial Arts Association during the 1967-68 school year initiated this investigation. Based upon the success of this initial institute, a major proposal was submitted for funding. After review by the United States Office of Education, this pilot project was funded in lieu of the major program.

The basic premise of this project is that teachers themselves are able to plan and conduct inservice education programs which are designed to improve classroom instruction. The teachers are aware of the needs and problems faced by their schools and are able to evaluate these problems and plan instructional programs which will give them the knowledge and abilities to solve their own problems.

In planning the instructional programs, the teachers will seek the best available assistance. They will freely use teacher educators, supervisors, local and state departments of education, representatives from business and industry as well as fellow teachers to provide guidance and to conduct the instructional programs. They are looking for solutions to the problems and will identify the best possible resources to solve these problems.

Local and state associations provide the organizational structure necessary to plan and conduct an instructional program. In general, classroom teachers serve as the officers of state industrial arts associations and control the operation of the association. As a result, this project was conducted in cooperation with five selected state associations. The officers and association members provide the necessary leadership to identify the needs of their teachers and plan the needed programs.

A second premise which guided the planning and conducting of this institute was the belief that classroom teachers will be more receptive to change and new ideas when they originate through the state association they control. The ideas are not being forced upon them by administrators, but are being presented by people they have selected to help solve some of the problems they face.

The following report provides a descriptive account and evaluation of the total project. The final section (located just ahead of the Appendices) titled Summary and Recommendations contains a brief overview of the project. It should be reviewed by those wishing only a brief overview of the project.

PROGRAM ORGANIZATION AND DISTRIBUTION

This pilot project was conducted in two phases. The first phase consisted of an initial planning conference of representatives from industrial arts state associations. This meeting was made possible by the American Industrial Arts Association which met in Las Vegas from April 8-11, 1969. This conference brought together representatives from all state associations affiliated with the American Industrial Arts Association. The initial conference for this institute was conducted immediately after the termination of the AIAA Conference. This procedure saved time and travel for state representatives and provided for a needed planning meeting for this pilot project.

The second phase of this project consisted of conducting five regional pilot programs in different geographical locations of the nation. Initial plans for these programs were identified at the Las Vegas meeting. These plans were placed into operation during April, May, and June of 1969. Each of the five regional programs was assigned a local person who was directly responsible to the Director and Associate Director of the pilot project.

These people, plus the two directors, served as the people principally responsible for conducting the pilot program and preparation of this final report. They are:[1]

Howard Decker - Project Director, Executive Secretary,
American Industrial Arts Association
Washington, D.C.

Ralph C. Bohn - Associate Director, Past President,
American Industrial Arts Association,
Chairman, Department of Industrial Studies,
San Jose State College, San Jose, California.

William B. Landon - Regional Coordinator,
Industrial Arts Department,
Englewood High School,
Englewood, Colorado.

Ralph V. Steeb - Regional Coordinator,
Consultant for Industrial Arts Education,
Florida State Department of Education.

[1] Listed positions are those held during the project.

Thomas R. Couey - Regional Coordinator,
President, Georgia Industrial Arts Association.

Earl Smith - Regional Coordinator,
Department of Industrial Education,
Oregon State University.

Edward Kabakjian - Co-Regional Coordinator with Lambert K. Sailor,
Department of Industrial Education,
Trenton State College, New Jersey.

Lambert K. Sailor - Co-Regional Coordinator with Edward Kabakjian,
President, Industrial Arts Association of
Pennsylvania.

The remainder of this report will consist of four major sections. They are:

1. Objectives - the institute objectives and rationale will be identified.

2. Initial Planning Conference - will contain a report of the structure and output of the conference.

3. Program Description and Evaluation - will contain a description and evaluation of each of the five regional programs conducted as part of this pilot institute.

4. Summary and Recommendations - will emphasize future needs based upon the findings of this pilot program.

OBJECTIVES

The following objectives were established for this institute:

1. To develop model programs of inservice education which lead to improvements in the instructional programs of the participants.

2. To develop procedures for working with state industrial arts associations in the development of inservice education programs.

3. To identify different needs of classroom teachers and teacher groups which might be met through inservice education.

4. To conduct pilot programs designed to meet one or more of the needs identified by state association members.

5. To provide inservice education to the greatest possible extent with the limited resources provided by a pilot project.

These objectives all centered on the prinicple problem of using state professional associations in industrial arts to develop inservice education programs for the teachers of their state. Since past activities centered on periodic meetings, guest speakers, field trips, exhibits, and committee activities, the concept of conducting organized instructional programs had rarely been experienced by state association. It was hoped that this pilot project could provide first hand experience in this new endeavor.

INITIAL PLANNING CONFERENCE

On March 14, 1969, shortly after completion of final negotiation with the United States Office of Education and receipt of authorization to begin the program, a letter was sent to the president of each state association of industrial arts teachers. With only a few exceptions, the presidents are members of the American Industrial Arts Association and the State Association, an official affiliate of the American Industrial Arts Association. A copy of this letter is enclosed as Appendix A.

This letter requested each state to identify ways that profitable programs of inservice education might be conducted in their states. The programs should be designed to focus on the critical needs of teachers. Emphasis was placed on programs which would lead to meaningful changes in classroom teachers. This action was particularly appropriate since it built on the results of the leadership institute conducted under NDEA Title XI and in cooperation with the American Industrial Arts Association the year before. At that institute, state representatives from nearly all state associations were assembled in five regional conferences for one week leadership training programs. The theme of each conference was the development of inservice education programs by state associations for their own members within their states. Each state association representative or representatives left the conference with a plan of action for the coming year. In most cases, this plan of action included emphasis on programs of inservice education within their state.

The March 14 request for inservice education programs paralleled many of the plans of action which states were developing and seeking ways of implementing.

The letter further requested each interested state to identify two representatives who would be able to remain for an official two day conference following the termination of the American Industrial Arts Association Conference at Las Vegas on April 8-11, 1969. The two day conference was scheduled for April 12-13, 1969. All plans for inservice programs were to be submitted prior to the meeting so that careful consideration and review of all plans could be conducted during the two day conference.

The two day conference was held as scheduled. Forty-three people were in attendance representing twenty-one states. Table I shows a distribution of people by states. Appendix B contains a list of all state association representatives in attendance.

During the two day meeting each state made a brief descriptive presentation of the ideas and plans which they felt could produce significant inservice education within their state. The total group questioned, reviewed, discussed and amplified the ideas presented in each proposal.

TABLE I

DISTRIBUTION OF PEOPLE IN ATTENDANCE AT PLANNING CONFERENCE

NUMBER IN ATTENDANCE	STATE
2	Arizona
2	Colorado
5	Florida
2	Georgia
1	Hawaii
2	Indiana
2	Kansas
1	Kentucky
3	Louisiana
2	Maine
1	Massachusetts
1	New York
3	Ohio
3	Oregon
3	Pennsylvania
2	Puerto Rico
2	Rhode Island
2	Texas
1	Vermont
2	Washington
1	West Virginia

During these presentations, the state representatives emphasized their belief that state association representatives would be able to influence the teachers they represent. State associations are organized as professional associations controlled by teachers, and serve as the official voice of teachers to the profession. Many state associations serve as the place where classroom teachers come together to work for the improvement of their instructional programs. This is particularly true of state associations where officers and board members are classroom teachers elected to their position of leadership by their peers. As a result, the group felt that inservice programs conducted through a cooperative effort between the American Industrial Arts Association and its affiliated state associations would directly effect the classroom performance of teachers.

After reviewing all plans, the group recommended the selection of five regional programs to be developed and conducted as the pilot program. Numerous ideas were presented by those in attendance. Regional representatives were selected and asked to begin work on their projects.

Each of the five plans was designed to solve a different problem, thereby permitting information to be obtained on five different inservice needs of teachers. This diversification provided a broad coverage of ideas and gathered information on different approaches to inservice education. The principle effort of each project was to probe inservice education programs to determine those best suited for development into major projects. A secondary aspect of actually providing some inservice education within states was recognized as a valid and desirable accomplishment. The five programs and the principle thrusts were:

1. Up-dating the Technical Competencies of Teachers - COLORADO

2. Up-grading Teacher Knowledge and Ability to Provide Increased Student Involvement in Industrial Arts Education - FLORIDA

3. Up-grading the Classroom Management Competencies of Teachers - GEORGIA

4. Up-grading the Leadership Competencies of Teachers - OREGON

5. Up-dating the Curriculum and Professional Competencies of Teachers - PENNSYLVANIA

At the termination of the two day planning conference, the five regional coordinators began making final plans for their phase of the pilot project.

All plans were developed and conducted with the director and associate director in order to provide adequate communication and coordination. The Pennsylvania, Georgia and Florida programs reported directly to the institute director, Howard Decker, while the Colorado and Oregon programs reported directly to the associate director, Ralph Bohn. The institute director and associate director then maintained communication, permitting flexibility and rapid program development.

PROGRAM DESCRIPTION AND EVALUATION

The five regional programs were conducted during April, May and June of 1969, as follows:

1. Technical Competencies - conducted in Denver, Colorado on May 10 and June 7, 1969.

2. Student Involvement - conducted in Tallahassee, Florida on April 25, 1969.

3. Classroom Management Competencies - conducted in Eatonton, Georgia on May 1-3, 1969.

4. Leadership Competencies - conducted at Corvallis, Oregon on May 23-24. 1969.

5. Curriculum and Professional Competencies - conducted in Pennsylvania as follows:

   a. University Park, Pennsylvania on May 10, 1969.

   b. Millersville, Pennsylvania on May 24, 1969.

   c. Cheyney, Pennsylvania on June 7, 1969.

   d. California, Pennsylvania on June 14, 1969.

The following pages will provide program description and an evaluation of each project conducted as part of the total institute.

Technical Competencies - Colorado

The teachers of Colorado identified the up-dating of technical competencies through the introduction of new instructional programs and up-dating of current technical information as the major thrust of their pilot program.

Woodworking is the most common industrial arts offering of the state, and is usually present in each industrial arts program of the state. Some programs consist of only woodworking. Many of the urban school districts are able to provide a diversified program of industrial arts including drafting, metals, electronics, power mechanics and woodworking. There is a need to extend this broad base program throughout the state so that schools in all parts of Colorado are able to provide broad curriculum offerings similar to those available in urban centers.

This pilot project centered on two technical areas, power mechanics and industrial production techniques and procedures. The basic rationale behind the project was to identify and train two teams. Each team would provide

inservice education programs in the technical area they represent. Programs would be presented in different parts of the state permitting each teacher in the state to participate. A member of each instructional team lived in each of the geographical areas of the state. Each team member was expected to conduct a workshop in his part of the state, and then be in a position to serve as a resource person and consultant for the teachers in his local area. The people selected for these programs were successful teachers of power mechanics and metal working teachers who had used industrial production techniques in their programs.

The objectives for the Colorado program were:

A. General objective:

1. To improve industrial arts instruction throughout Colorado by an extensive inservice education program.

B. Specific objectives:

1. To expand exploratory opportunities in industrial arts with emphasis on the new technology.

2. To update existing industrial arts courses and apply judgment toward the problem of "curriculum obsolescence".

3. To provide activity-oriented courses which emphasize the desirability of continuing education for students not profiting from traditional programs of instruction.

4. To decentralize inservice education experiences by taking the program to where the action is - the local laboratory.

5. To develop teacher leadership potential.

6. To provide experiences for teachers in skill areas not readily available to them.

7. To develop and improve teaching techniques in all areas of industrial arts.

8. To increase teacher involvement in the total industrial arts instructional program of Colorado.

The initial meeting for the institute was held on April 17. This meeting included William Landon, Local Project Coordinator; Rodney Anderson, State Consultant for Industrial Arts; and Tom Manion, Immediate Past President of Colorado Industrial Arts Association. This meeting selected the personnel who would be involved in the project and established criteria and plans for conducting the two project work sessions. Appendix C contains a list of project personnel.

Each person was contacted and invited to participate. Prior to May 10, 1969, a letter was sent to all members of the Colorado phase of the project briefing them on the details of the meeting.

All personnel were present at the meeting on May 10. The entire group convened at 9:00 A.M. for a brief presentation of the background, structure and purposes of the pilot study. Directions were given to the field teams relative to the day's activity. These are shown in Appendix D and E. The field teams then spent the major part of the day discussing the background, structure and content of the instructional units. They developed goals for the teams and divided all responsibilities. The teams evaluated teaching materials and selected those materials that could be produced by the media specialist and secretary.

The field teams continued this same type of activity during the period between the two meetings of the pilot study group. Requests for the production of instructional materials were forwarded to the regional coordinator who correlated the work with the media specialist and secretary.

Participants were reminded by letter on May 29 of the meeting scheduled for June 7. Enclosed with this letter was a memorandum from Mr. Flierl, pilot study evaluator. A copy of this letter which stressed the importance and need for evaluation of the program is contained in Appendix F.

At the June 7 meeting, the field teams analyzed their instructional materials and organized them into units which could be utilized in workshop situations. The field team leaders presented their instructional units to the group for questions and discussion. It was during this time that participants reacted to the questionnaire prepared by Mr. Flierl, relative to the evaluation of the pilot project. The questionnaire is included as Appendix G.

The work sessions terminated having accomplished the basic goal of bringing together outstanding industrial arts teachers from the three geographic areas of Colorado; developing units of instruction in power mechanics and industrial production techniques with the assistance of a team leader and media specialist; and encouraging these teachers to conduct inservice education workshops in their respective geographical areas.

Evaluation and Recommendations for the Future

Mr. Flierl made a thorough analysis of the evaluation form and provided recommendations based upon this evaluation and his impartial observations. Mr. Flierl was an impartial evaluator and had no direct responsibility for industrial arts in Colorado. He served as a general consultant for the secondary schools of Colorado. His evaluation report is included as presented.

"1. STRENGTHS

a. The objectives of the project are clearly stated and are broad and comprehensive. They have been the guide for the project. The initial planning aspects of the objectives have been effectively achieved.

b. The personnel selected for the planning sessions were enthusiastic, competent, and adaptable. They utilized time to good advantage, planned carefully, and carried out responsibilities in a most effective manner.

c. The instructor packets being prepared by the two teaching teams show evidence of knowledge and understanding of productive learning processes. Both are utilizing activity approaches, involvement of students in doing what is being talked about, and practical demonstrations which should help teachers see ways to include new content in course offerings or broaden the curriculum by introducing new classes.

d. The Colorado Industrial Arts Association is a very active, dynamic group. This project provides a way for the Association to exert leadership in the area of inservice education. It is exciting to see a professional association interested in this important aspect of teacher improvement. It is even more exciting to see an association take action utilizing its own membership to be the agents of change with other teachers. Future success in attracting teachers to participate in the inservice sessions is enhanced by these vital points.

e. Involvement and committment are magic words of our decade. Both are evident in the personnel who worked in the pilot study. These are essential ingredients for extending ideas into the field. The potential looks excellent.

2. WEAKNESSES

a. Participating team members came from diverse and far-distant points of the state. This added strength and balance to the project, but at the same time it presented a problem in completing the work in the allotted time. Time was inadequate.

b. Problems of communication with teachers in the field to sell the value of the inservice sessions were not dealt with in a substantive way during the planning session. Work remains to be done.

c. Questions were raised during the two planning sessions relative to the process of learning and the process of instituting change in people. However, we failed to adequately explore the alternatives or to have a "meeting of the minds" to share experiences and understandings across the teams. In the future, perhaps this should be done before the content and methodology decisions are made by the teams.

3. RECOMMENDATIONS

a. The project is evolving in three major areas of desired change in current practices in I.A. education in Colorado.

(1) Improvement of current course offerings, especially as it relates to aiding disadvantaged youngsters to better prepare for life work. A second aspect of importance could be in the area of drop-out prevention as more vital and relevant opportunities are offered to minority and low socio-economic groups in our state.

(2) Expansion of opportunities for students to learn in an environment designed more closely to meet needs of young people. The changes sought through this inservice are being urged to better the quality of education of the students.

(3) Development of instructional capabilities of teachers, especially as there is cooperation between institutions of higher learning and "master" teachers in the field working cooperatively to achieve this end.

The evaluator sees positive evidence in the planning stage that all three of these areas of thrust are being given adequate consideration. It appears that a significant impact can be made to bring about desired changes. He recommends moves to see that the plans made to date are given rapid tests with teachers in the field.

b. The organizational and planning processes used in the project to date have proved successful. The opinionaire survey of the participants reflects support of this view. There is a need now, to devote considerable effort to mapping plans for the implementation processes in the field. Two suggestions to encourage teacher participation were mentioned often during the planning days: financial compensation and college credit. There may be other inducements possible or there may be contractual agreements with districts as part of the available procedures. In any event the problem needs attention before much further progress can be made.

c. The evaluator recommends extensive use of a media specialist in further development of this concept of inservice education. This person proved especially valuable in the planning process.

d. Flexibility will become increasingly important as the project expands with funding. Changes in structure may become necessary to meet the needs and requirements of the area to be developed. It may be vital to use national leaders as team leaders to bring the greatest expertise available."[1]

The associate director was in attendance at all meetings and aided with the evaluation. It was noted that the planning groups were aware of existing conditions and needs of teachers in their local areas. During the work sessions, they continually showed that they were aware of existing situations. They brought the ability to identify changes which might be acceptable to teachers. These factors are often lacking in meetings held by administrators, supervisors, and teacher education personnel.

Each work group identified a realistic step or amount of progress that they hoped to be able to accomplish within the state. The introduction of new content and the amount of up-grading of technical competencies was not as great as a group of college administrators and college faculty might plan. However, each group selected was realistic and could be accomplished by the teachers. Greater amounts would have been inappropriate since laboratory facilities and teacher knowledge must advance at a gradual and steady pace.

One of the major outcomes of this project was identification of how local teachers can be trained and used for producing needed educational change. Their technical knowledge coupled with their understanding of existing conditions and general acceptance makes them a valuable contributor to the imporvement of instruction. This institute was considered a success because it was effective in putting classroom teachers to work on the general improvement of instructional content in industrial arts.

The field teams made abbreviated presentations of their instructional units to industrial arts teachers at the annual convention of the Colorado Education Association to be held in Denver on October 10, 1969. Later in the fall of 1969, the field teams will conduct inservice education workshops for industrial arts teachers in the various geographic areas of the state.

The need for industrial arts inservice education throughout the state is evident. Several workshops have been conducted within the past year. The interest and involvement indicated that teachers want to gain knowledge and experiences that will help them provide updated and improved industrial arts programs for the students of Colorado.

Student Involvement - Florida

A pilot program in student involvement was included because of it's timely recognition of one of the major problems facing American society

[1] Report from Mr. Joseph Flierl dated June 23, 1969.

today. Education must continue to recognize that students are asking for a voice in making decisions which directly effect them, whether it involves social or educational problems.

Student disenchantment with education today is evident in the dissent and tension expressed on campuses and in classrooms across the nation. In addition to social and financial problems, many inter-personal relationships and activities contribute to student unrest. Students generally find school programs and classes to be confining and rigid. Teachers are inflexible and their teaching methods static. Attention by educators is beginning to be focused on student involvement as a technique for defining and solving many of the problems of education. Student involvement in the education process holds great promise for serving the current personal and social needs. This phase of the project was designed to aid industrial arts teachers in involving students in many facets of the industrial arts program and instruction.

The objectives of this pilot program were:

1. To acquaint industrial arts teachers with the current trend for greater involvement of students and the solving of social and educational problems.

2. To identify procedures for determining and developing student leaders.

3. To identify student interest as a basis for program and activities planning.

4. To develop plans and procedures for involving students in determining course objectives and content.

Participants at the inservice workshop included the Florida Industrial Arts Association officers, Florida district industrial arts presidents, local association officers, and selected resource personnel. Mr. Kenneth Smith, president-elect of the Florida Industrial Arts Association, served as chairman of the workshop. Dr. William Kerensky, professor at Florida Atlantic University, served as resource consultant. Kenneth Woo, Florida Industrial Arts Association president, played a major role in program planning.

Following a general orientation to student involvement, the participants heard Dr. Kerensky give a formal presentation on the subject. A panel of four senior high school students discussed industrial arts and answered questions asked by the participants. A tape recording made by the national industrial arts student president from Texas was played. Comments by the national student president requested that teachers make greater use of the initiative of pupils and that teachers show a greater interest in individual pupils. Teachers should not only help the student to accept and carry out responsibilities but should direct the activities that will involve students with each other. The student president further affirmed that it is the teacher with enthusiasm, initiative, and empathy who best gains student involvement.

During a third session of the workshop, the participants attempted to develop, using group techniques, a plan of activities for greater student participation. Results of the workshop were summarized by the Florida Industrial Arts Association officers for the purpose of developing a plan of action for the 1969-70 school year.

Evaluation and Recommendations for the Future

The effects of the conferences were evaluated by the workshop director and state department of education consultant. They indicated that it was apparent that teachers generally did not understand student involvement and were unable to identify or devise student involvement activities and techniques. They felt that industrial arts teachers needed considerable direction if they are to make progress in the area of student involvement.

This feeling was compared with instructional activities currently in practice in industrial arts - that of involving students as assistants in the instructional program. The practice of using students as class supervisors and performing such tasks as activity supervisor; safety, tool, and equipment checking; evaluation; etc., was commendable but did not take the place of the type of student involvement stressed at this workshop. Industrial arts teachers having a well developed student activity program have a structure for student participation which can be used to develop a program of student involvement as envisioned by this workshop.

Industrial arts students are needed to help identify course objectives and course content. An extensive project to acquaint teachers with this need is timely and urgently needed. One of the outcomes of this project should be the development of quidelines for the establishment of student involvement. The guidelines would supplement conferences and seminars designed to acquaint teachers with the need to involve students, show teachers the importance of using and considering student suggestions and curriculum recommendations, and help teachers make the necessary curriculum changes to incorporate student recommendations.

The final outcome of this program would be the development of teachers procedural packages for the involvement of students and the program of industrial arts.

These procedural packages will involve such areas as the following:

1. Course content, organization, and programming:
    a. content sequence and scope
    b. individual study plans.
2. Laboratory procedures, design, cleanup lists
3. Test construction
4. Self-evaluation
5. School services (such as Audio-Visual)

6. Assisting and supervising other pupils (aides)

7. Student publications

   a. Posters announcing open house, why study industrial arts, new courses, general posters for the school

8. Club activities and organization

9. Sharing personal experiences related to content

10. Oral reports

    a. Individual

    b. Group, panels

11. Contests (student operated)

    a. Contests

    b. Awards programs.

Classroom Management - Georgia

Another area of industrial arts education which deserves attention is teacher activities related to laboratory organization and management. This includes the records and procedures needed to carry out an industrial arts program. Emphasis is placed on making efficient use of instructional time, providing a challenging working atmosphere, and implementing industrial arts course content through the efficient use of facilities.

Poorly organized facilities and procedures provide a poor instructional program. Students loose interest quickly and fail to accomplish the objectives of the course. Some of the specific problems related to laboratory organization and management are:

1. Lost instructional time due to poor organization and management.

2. Loss of student interest due to disorganized programs.

3. Poor public relations due to bad image based on poor programs.

4. Safety hazards as a result of poor organization.

5. Poor program organization requiring more work of teacher with less learning taking place.

6. Poor organization makes it impossible to implement new concepts or curriculum material in industrial arts programs.

Based upon these concerns, the following objectives were established for the Georgia program on classroom management:

1. To identify methods of improving student interest and learning through the development of better class management procedures.

2. To identify means of implementing new approaches to industrial arts through the modification of existing procedures.

3. To reduce safety hazards.

4. To reduce teacher work loads through improved management and time.

5. To make more efficient use of educational facilities.

On May 1-3, 1969, a conference was held at Eatonton, Georgia which emphasized classroom management and laboratory organization. Georgia Industrial Arts Association officers, district industrial arts chairman and other industrial arts leaders of Georgia participated. A total of eighteen industrial arts leaders in Georgia were assembled. Special consultants were invited to make presentations on the following topics:

1. "Acquisition of Materials"

2. "Maintenance of Laboratory Equipment"

3. "Color and Environment"

4. "Efficiency and Overview of Time and Motion Study"

5. "Layout of Industrial Arts Facilities"

6. "Safety"

7. "Organization of Records and Systems"

A detailed breakdown of the program and speakers for the three day conference is contained in Appendix H.

During the period of May 4 through June 20, 1969, an inservice meeting was held in each of the local districts. At these meetings, district chairmen gave a capsule report of the activities of the May 1-3 conference. Discussions concerning problems and possible solutions related to classroom management were held in each district. Every teacher in the state was invited to attend these meetings. Even though most teachers had to pay all expenses and travel some distance to attend the meetings, most of the districts had excellent attendance. Over one hundred fifty teachers took part in the district meetings. At these meetings, a list of problems and solutions were developed and then mailed to the coordinator of the project for review and revision by the central committee. These lists are being interpreted and a listing of recommendations pertinent to industrial arts teachers of Georgia will soon be in the hands of all teachers.

Evaluation and Recommendations for the Future

The results of this project were gratifying. Although classroom management problems identified by the participants varied greatly, several major problem areas proved to be common to many teachers. As a result of the district meetings, many teachers realize that classroom management can increase the efficiency of instruction and provide improved instruction. In the past, many teachers did not realize that sound class management was important or could seriously effect their instructional program. This program helped many of these teachers look critically at their own programs.

Plans are to continue the emphasis on classroom management during the 1969-70 school year. Special speakers will be arranged for district industrial arts meetings. The Georgia Industrial Arts Association will conduct a conference on November 1, and emphasize "Laboratory Organization and Management". The association will also sponsor a contest to see which teacher can provide the most improvement in this area during the 1969-70 school year. It is hoped that the interest developed with this pilot project, plus the planned contest, will help foster immediate improvements in class management and organization.

The results of this program have identified the need for continual work in this area. The project was successful in identifying problem areas and in helping many teachers towards solutions of these problems. However, a general need remains for continued efforts to improve class management and organization. This project began this improvement in Georgia. In order to be most effective, it should be continued in the future.

Leadership Development - Oregon

The problem of identifying and working with local industrial arts leaders for the improvement of industrial arts education in Oregon is of paramount concern to Oregon educators. This need for local state leadership development was accepted as the major objective for the Oregon pilot program. Oregon industrial arts leaders felt that a strong inservice education program could only be built upon a well organized and directed industrial arts association at the state and local levels. During recent months, the Department of Industrial Education at Oregon State University, the Oregon Board of Education personnel, and the Oregon Industrial Education Association have explored individually and jointly the possible solutions to meet the varied needs for the inservice education of industrial arts teachers. A solution to the problem has not been easy to establish. Different needs exist for (1) the young teacher presently working toward a graduate degree, (2) the teacher with five to ten years experience who is working toward an improved position on the school district salary schedule, and (3) the older teacher who needs updating in technical and professional subjects. In addition, a concentrated large scale attempt must be made to inspire the industrial arts teachers to establish programs that better reflect the technological aspects of our society.

The purpose of this pilot program was to determine how the state association could best serve the needs of the individual industrial arts teacher through improved leadership activities.

The objectives for the program were:

1. To review the officers' roles in the state and local divisions of the Oregon Industrial Education Association.

2. To review the local constitutions, develop a common constitution for local associations, and issue new charters to each of the nine industrial education areas.

3. Analyze the leadership needs of local association officers, develop statements of duties, and provide instruction and materials for all officers.

4. Identify special local association and individual teacher needs that could be met through cooperative planning and action by the state association, Oregon State University, and the Oregon Board of Education.

5. Establish a long-range plan for identifying and satisfying inservice needs of the association members.

The opportunity to present this leadership program brought a number of innovations to the inservice education of Oregon industrial arts teachers.

The innovations incorporated into the program were:

1. The state industrial education association was involved in identifying potential industrial arts leaders and providing professional leadership training for these teachers.

2. Three major state organizations cooperatively studied the problems of improving leadership and meeting the professional needs of industrial arts teachers.

3. A large group of industrial arts teachers were involved in long-range planning to better integrate the unique contributions of each of the organizations represented.

These innovations were developed and integrated into the program. Each part was planned to involve the consultants in group analysis of issues identified as central to the improvement of industrial arts education.

The program was organized around three major interaction periods, as follows:

Period One: Identification of Professional Problems and Individual Needs.

Period Two: Identification of State and Local Area Association Needs.

Period Three: Establishment of Goals to Meet Professional Problems and Needs.

The evaluation phase of the institute was developed during the planning of the program and conducted during and after the program. The evaluation was conducted in two separate but related phases:

1. Evaluation as an integral part of each of the three phases of the program, followed by a major group evaluation at the end of the institute.

2. Evaluation by the Oregon Industrial Education Association Executive Board in a special meeting on May 28, 1969.

The institute planning started shortly after the Las Vegas conference. The Executive Board of the Oregon Industrial Education Association established a planning committee to develop the plans for a two day leadership conference. Planning for the conference was divided as follows:

1. Selecting conference and program coordinators.

2. Selecting consultant participants.

3. Planning and scheduling the instructional program and reserving the necessary facilities at Oregon State University.

4. Preparing and disseminating program announcements and registration cards.

The time table for the conference was established as follows:

1. <u>April 29-30, 1969</u>

   a. Develop plans for the conference.

   b. Identify conference staff.

2. <u>May 3, 1969</u>

   a. Review of all plans by the Oregon Industrial Education Association executive board.

   b. Confirmation of the selection of area officers. Members-at-large to be selected by the board and the area presidents at the meeting.

3. <u>May 5, 1969</u>

   a. Send detailed proposal to the pilot program director and associate director.

4. [illegible]

   a. Notify selected participants and their local school administrations.

5. May 15, 1969

   a. Make final plans for the conference. Confirm participant and staff participation.

6. May 23-24, 1969

   a. Conduct conference.

7. May 28, 1969

   a. Conduct evaluation. Write final report of total program.

The following procedures were used for establishing the number of consultant-participants and identification of persons to be selected.

1. The purposes and structure of the conference limited the effective group to those persons directly involved with the state association in a leadership role.

2. A limit of forty-five persons was reached by determining the leadership positions within the state and local area associations. The participants consultants attending the conference were serving the association as follows:

   a. Elected officers of the Oregon Industrial Education Association Executive Board.

   b. Officers from the local area Oregon Industrial Education Associations.

   c. Members at large chosen for their involvement in area leadership.

Identification of each specific participant was made by the Oregon Industrial Education Association executive board through the roster of local association officers. The members-at-large were selected upon recommendations of the local area association officers. Specific criteria for selection of the members-at-large was their interest in the professional association and their demonstration of leadership or potential for leadership.

An invitation letter and response card were sent to each identified consultant-participant. A carbon copy of the invitation letter was also sent to the superintendent or school principal of the selected consultant-participant.

Responses in the affirmative came from thirty-eight of the identified consultant-participants. Thirty-six attended the conference.

The conference coordinators were selected to represent the three organizations responsible for the conference - Oregon Industrial Education Association, Industrial Education Department at Oregon State University, and the Oregon State Board of Education. The following people were selected as coordinators:

Dr. Pat Atteberry - Head, Department of Industrial Education
Oregon State University

Mr. Ted Gould - State Industrial Arts Consultant
Oregon Board of Education

Mr. Richard Embree - President, Oregon Industrial Education Association

The conference program coordinators were:

Dr. Earl E. Smith - Professor, Department of Industrial Education
Oregon State University

Mr. James Grossnicklaus - American Industrial Arts Association Representative
Philomath High School
Philomath, Oregon

Financial officer for the institute was Mr. Wayne Kreger, Business Coordinator for the Oregon Industrial Education Association, Philomath High School, Philomath, Oregon.

To achieve the desired goals of free interaction during the first discussion period, people not involved with industrial arts education were invited to serve as discussion leaders. These were:

Mr. John Barnes - Associate Director of Placement
Oregon Education Association
Tigard, Oregon

Mr. John Herbert - Secondary Education Consultant
Oregon Board of Education
Salem, Oregon

Mr. Maurice Burchfield - Director, Curriculum and Instructional Media
Oregon Board of Education
Salem, Oregon

The conference program required two keynote speakers to help the group explore the changing expectations for industrial arts education, the leadership responsibilities of state associations, and the individual needs of the teachers they represent. The two speakers selected for the conference and their assigned topics were:

1. Dr. Ralph Bohn - Chairman, Department of Industrial Studies
   San Jose State College
   San Jose, California

   Topic: Association Activities and the Meeting of Professional Needs

2. Dr. Leo Myers - Administrative Assistant to Oregon Superintendent of Instruction
   Oregon Board of Education
   Salem, Oregon

   Topic: Defining Leadership Roles in a Professional Association

The conference was conducted on May 23, 1969 from 5:30 to 9:30 p.m. and on May 24, 1969 from 9:00 a.m. until 3:30 p.m. A detailed outline of the program is presented as Appendix I. People attending the conference are shown in Appendix J.

Evaluation and Recommendations for the Future

Dr. Earl Smith, program coordinator, moderated the evaluation session. Evaluation of the institute was performed by the total consultant-participant group. The following points were made by members of the institute and quoted from Dr. Smith's report:

"1. The first meeting was very inspirational and should have been longer to provide additional discussion time with Dr. Bohn.

2. The group leaders were well chosen and the use of personnel not related to the professional group encouraged active statement of problems and needs.

3. The informal atmosphere encouraged participation by all consultants.

4. The information from the institute has value for all Oregon industrial education teachers, and should be disseminated to all through the association newsletter.

5. The institute made a major contribution in building communication channels and inspiring renewed professional activities among local area association officers.

6. The institute offered a unique opportunity for the improvement of leadership competencies of the inservice teacher, as well as a possible pattern for future workshops to improve professional competency.

7. The institute offered a unique opportunity for a cross-section of the industrial arts teachers to join in a dialogue with the three major organizations most directly connected with their professional preparation, certification, and representation."[1]

[1] Written report from Dr. Earl Smith, dated June 25, 1969.

The following points were identified by an evaluation meeting by the Oregon Industrial Education Association Executive Board. They were identified as important problems and needs the association must face in the near future. The problems, in outline form, are those identified by the consultants and participants during the institute:

1. Improve knowledge of our resources
    a. Identify resources available
    b. Categorize for possible contribution and/or function
    c. Retrieve for utilization.
2. Improve communication
    a. Utilizing the professional power structure
        (1) State
        (2) Education
        (3) Professional associations
        (4) Industry
    b. Use of all available media
    c. Identify areas of responsibility.
3. Improve service to the profession
    a. Initiate innovative inservice education
    b. Identify exemplary industrial arts programs and seek dissemination of information, thereby expanding programs
    c. Improve recognition of the unique contributions of the association
        (1) To the individual
        (2) To the profession.
4. Involve the individual
    a. Offer a unique contribution through association activities
        (1) To professional development
        (2) To personal-social development
    b. Develop a program to assist personal and professional advancement.

This pilot program has assisted the state association by clearly identifying major problems and needs of the Oregon industrial arts teachers. The evaluation of the institute by the Oregon Industrial Education Association Executive Board assisted the association in determining the major professional thrust of the organization's activities. As an outcome of the conference, the Executive Board has identified two major and closely related issues for immediate action by the profession. These issues are as follows:

1. The immediate improvement of professional communication channels. This need appears at all levels of professional activity and between all of the organizations involved in the institute.

2. The development of a massive, innovative model for inservice education. The need for an inservice program to meet the many divergent problems of the teachers assumed an unexpected dominance in the dialogue of the institute. It was apparent to all the consultants that this is the most pressing problem facing industrial arts education. It was also apparent that improvement of the existing industrial arts curriculum is highly dependent upon upgrading the inservice teacher through workshops and other forms of professional study. To be effective, it will be necessary that this inservice activity occur on a large scale, with as many teachers as possible experiencing similar professional study.

It is the intent of the Oregon personnel involved in this institute to seek methods for funding a major proposal to establish a model and innovative inservice program. This effort will be a cooperative thrust to professionally upgrade the industrial arts teacher teachers now serving in Oregon schools.

Curriculum and Professional Competencies - Pennsylvania

This program involved the most people and was the most ambitious of the five pilot projects. It consisted of a depth analysis of new curriculum recommendations, plus work sessions for the participants. The program was repeated four times throughout the state of Pennsylvania so that all teachers would have an opportunity to participate. The objectives were:

1. To provide the teachers with the skills necessary for them to be self-sufficient and effective in establishing criteria for evaluating and selecting instructional content for their programs

2. To identify specific characteristics of curriculum design

3. To discuss and use general elements of procedure for evaluating curriculum design

4. To evaluate and compare elements and aspects of several current industrial arts curriculum designs

5. To develop a list of appropriate characteristics and program variables for industrial arts for the elementary schools, the middle school, and the high school.

It was hoped that the experiences gained from these one-day conferences will enable the industrial arts teachers to be more successful in comparing and evaluating industrial arts curriculum design. Hopefully, teachers will be inclined to re-evaluate their present program in light of some of the variables, goals, and evaluating procedures presented at the institute.

The four conferences were conducted at the following locations:

1. University of Pennsylvania - May 10, 1969

2. Millersville State College - May 29, 1969

3. Cheyney State College - June 7, 1969

4. California State College - June 14, 1969

The program was designed to serve teachers from the four geographic regions of Pennsylvania. This procedure made it possible to invite all Pennsylvania industrial arts teachers. The first one-day conference was held at State College Junior High School, University of Pennsylvania. Forty-five teachers from the sparsely populated north and central portions of the state were in attendance. The second conference, held at Millersville State College, proved to be the largest. One Hundred and forth-eight teachers from central and southern Pennsylvania attended. Cheyney State College, the third conference site, attracted sixty-five teachers from the southeast. The fourth and final conference was held at Calfiornia State College and was attended by ninety-one teachers, in spite of some sizeable weather problems. In total, three hundred forty-six of the two thousand four hundred industrial arts teachers in Pennsylvania attended one of the four conferences. Since attendance was optional, the conferences conducted on Saturdays, and each person responsible for his own expenses, the turnout was considered satisfactory.

Each conference emphasized current and new curriculum proposals for the middle and high school programs of industrial arts. In addition, the conference at Millersville State College studied elementary school industrial arts. Appendix K contains a copy of the program presented at each conference. The curriculum proposals presented at each conference identified four of the leading curriculum formats of the nation. These included the American Industries project, Industrial Arts Curriculum project, the Maryland Plan, and the Maine Plan.

In order to make certain that the content of the curriculum proposal was presented accurately, leaders and individuals directly associated with the proposals were asked to prepare materials for each conference. These materials were then made available for use by the participants. Contributions to the curriculum materials and other written reports included:

Dr. Donald Maley, University of Maryland

Dr. Orville W. Nelson, Stout State University

Dr. Willis Ray, Ohio State University

Mr. Elwood Padham, Maine State Department of Public Education

Mr. Paul Wighaman, Pennsylvania Department of Public Instruction

Mr. Ben Graeff, Reading School District

Mr. Donald Hoffman, Harborn, Horsham School District

Dr. Richard Doutt, Millersville State College

Mr. William T. Tichardson, York.

In addition to the curriculum and evaluation concepts, emphasis was placed on the preparation of behavioral objectives. This was a secondary, but important aspect of the program. Teachers were asked to review the objectives of the new curriculum proposals in behavioral terms. The objectives were to communicate the type of behavior the learner was to develop. Goal clarity and measureability of objectives were presented as important characteristics of behavioral objectives.

Evaluation and Recommendations for the Future

The evaluation of the Pennsylvania program is presented in three parts. The first part of the evaluation is in the form of a summary statement by the program coordinators. Their perceptions were influenced and supported by the reactions received from the presentors and discussion leaders who contributed to the program of each conference.

The second part contains responses of the participants to an evaluation questionnaire they completed. The data is presented independently for each conference and collectively for the entire project.

The third part of the evaluation report is a statement of future needs and projections as presently envisioned.

Part I - Coordinators Evaluation. The Pennsylvania Inservice Education Project appears to have been quite successful from the standpoint of the coordinators. Factors which lead to this overall evaluation include: attendance figures, participant evaluation forms, workshop discussion leader reports, and participant interest as expressed by requests for additional materials.

The interest and motivation demonstrated at each conference was high. The coordinators have been advised that several school districts have provided one week summer workshops at the local level for their industrial arts teachers. This was done to provide for sharing the experiences encountered by the teachers attending the conference.

Dissemination and magnification such as this quickly compounds the effect of the original conference.

The reactions of the participants, as expressed in their evaluation forms verbally to coordinators, indicate a keen desire to do further work in developing curriculum objectives for industrial arts in Pennsylvania. Many experienced the stating of objectives behaviorally for the first time. They enthusiastically support the development of long range, intermediate and specific instructional objectives on the part of the state association.

This project also proved to be a first exposure to Bloom's Taxonomy of Learning for the vast majority of participants. While using this information in analyzing suggested objectives, many discrepancies were noted. Many of the workshop session summaries point to the fact that industrial arts must develop more objectives in the affective domain. Much work must also be done to develop behavioral objectives that cover the entire range of learning processes.

Since workshop discussion leaders were educators with limited industrial arts background, it was stimulating to hear them praise the interest and enthusiasm of the participants. Given the background presented by the general session speakers, the participants were made aware of the shortcomings of our present objectives. Over ninety per cent have indicated a desire to continue working on behavioral objectives for industrial arts. Another indication of the participants' interest is the fact that over fifty per cent ordered working materials, at a cost of $1.00, to increase their knowledge and background in behavioral objective writing.

Part II - Participant Evaluation. The following section contains the response to the evaluation form that was provided at the conclusion of each of the one day conferences. In order to present tables as simple as possible, the following coding and abbreviations are used throughout the remainder of the evaluation of the Pennsylvania project.

1. N - the number of teachers responding (above the line)
2. % - percentage of the total number of teachers (below the line)
3. The figures at the top of the scale represent:

   1 - strongly agree

   2 - agree

   3 - undecided

   4 - disagree

   5 - disagree strongly

4. The abbreviations used to represent the college or univeristy which sponsored the conference are:

PSU - Pennsylvania State University

MSC - Millersville State College

ChSC - Cheyney State College

CaSC - California State College

Preceeding each table is the question asked on the questionnaire. Following each table is an observation based on the responses.

1. This workshop will help me do my job better.

		1	2	3	4	5
PSU	N	0	17	8	5	0
	%	0.0	57	27	16	0
MSC	N	13	63	10	0	0
	%	15.2	73.4	11.6	0	0
ChSC	N	13	30	1	4	0
	%	27.1	62.5	2.1	8.3	0
CaSC	N	11	35	11	1	0
	%	18.9	60.4	18.9	1.8	0
Total	N	37	145	30	10	0
	%	16.6	65.2	13.5	4.5	0

Observation: The teachers who participated in the first workshop/ conference at Penn State were less inclined to feel that they would do a better job of teaching as a result of the workshop than the participants of the last three workshops. Eighty-one per cent of the teachers participating in the four workshops felt that they would be able to do a better job of teaching while 4.5 per cent did not feel that the workshop was that helpful.

2. I have learned much at this workshop.

		1	2	3	4	5
PSU	N	3	13	11	4	0
	%	10	42	35	13	0
MSC	N	19	46	16	4	0
	%	22.4	54.2	18.8	4.7	0
ChSC	N	9	29	6	3	0
	%	19.2	61.7	12.7	6.4	0
CaSC	N	6	37	11	4	0
	%	10.3	63.8	18.9	6.9	0
Total	N	37	125	44	15	0
	%	10.3	63.8	18.9	6.9	0

Observation: After the first workshop, some of the program formats and other strategies were changed in an effort to be more effective. Only 52 per cent of the participants at the first workshop felt that they learned much while 76.6, 80.9 and 74.1 per cent at the final three workshops felt that they had learned much. Only 6.7 per cent of all the people attending felt that they did not learn very much at the workshops.

3. I already knew most of what was covered at this workshop.

		1	2	3	4	5
PSU	N	1	14	1	14	2
	%	3	44	3	44	6
MSC	N	3	11	16	46	7
	%	3.6	13.6	19.6	55.5	8.4
ChSC	N	6	12	3	25	1
	%	12.7	25.6	6.4	53.2	2.1
CaSC	N	0	7	9	36	4
	%	0	12.8	16.1	64.4	6.7
Total	N	10	44	29	121	14
	%	4.5	20.1	13.3	55.5	6.0

Observation: A total of 61.5 per cent of the participating teachers admitted that they did not already know the material covered. Less than 25 per cent of the participants felt that they knew the material to some degree.

4. This workshop dealt with problems which are relevant to my job.

		1	2	3	4	5
PSU	N	6	22	3	0	1
	%	19	69	9	0	3
MSC	N	28	48	7	2	0
	%	33.0	56.4	3.2	2.4	0
ChSC	N	23	21	1	1	1
	%	49.0	44.7	2.1	2.1	2.1
CaSC	N	12	41	4	1	0
	%	20.0	68.3	6.7	1.6	0
Total	N	69	132	15	4	2
	%	31.0	59.4	6.7	1.8	0.6

Observation: Ninety per cent of the pariticpating teachers felt that the workshops dealt with problems which were relevant to their positions. Only 10 per cent of the teachers failed to see relevance to their teaching problems.

5. This workshop held my interest well.

		1	2	3	4	5
PSU	N	7	17	5	2	0
	%	23	55	16	6	0
MSC	N	16	54	14	1	0
	%	18.6	63.5	16.5	1.4	0
ChSC	N	13	26	3	5	0
	%	27.7	55.4	6.4	10.5	0
CaSC	N	10	37	5	6	0
	%	17.2	63.8	8.6	10.3	0
Total	N	46	134	27	14	0
	%	20.8	60.6	12.2	6.3	0

Observation: Each of the four workshops were successful in holding the interest of 81.4 per cent of the participants while 6.3 per cent felt that their interest was not maintained. 12.2 per cent were undecided.

6. Advanced announcements about the workshop were very good.

		1	2	3	4	5
PSU	N	7	11	2	10	2
	%	22	34	6	32	6
MSC	N	12	28	16	25	2
	%	14.5	32.8	19.3	30.0	2.4
ChSC	N	17	18	5	3	3
	%	37.0	39.1	10.9	6.5	6.5
CaSC	N	17	25	12	2	1
	%	29.9	43.8	21.0	3.5	1.8
Total	N	53	82	35	40	8
	%	24.4	37.6	16.0	18.3	3.7

Observation: The first workshop was held just one and one half weeks after the initial announcements were sent out. Of the sixty teachers attending, 38 per cent felt that insufficient notice had been given. It is difficult to anticipate the number of teachers who could not attend because of short notice. It is interesting to note that later meetings showed a fewer percentage of teachers feeling that insufficient notice had been given. Only 5.3 per cent of the teachers attending the last workshop felt that they had been given insufficient notice.

7. The workshop site, taking into consideration the various needs of people involved, was satisfactory.

		1	2	3	4	5
PSU	N	13	19	0	0	0
	%	41	59	0	0	0
MSC	N	53	31	1	0	0
	%	62.3	36.4	1.3	0	0
ChSC	N	20	28	0	0	0
	%	41.7	58.3	0	0	0
CaSC	N	26	31	0	0	1
	%	44.8	53.4	0	0	1.8
Total	N	112	109	1	0	1
	%	50.2	48.8	0.5	0	0.5

Observation: Ninety-nine per cent of the participating teachers felt that the selection of the four sites was a satisfactory arrangement.

8. The program as presented was relevant to the objectives.

		1	2	3	4	5
PSU	N	2	15	9	5	1
	%	6	47	28	16	3
MSC	N	28	46	10	2	0
	%	32.6	53.5	11.6	2.3	0
ChSC	N	14	26	1	3	1
	%	31.2	57.8	2.2	6.6	2.2
CaSC	N	15	35	7	0	1
	%	25.9	60.3	12.0	0	1.8
Total	N	59	122	27	10	3
	%	26.7	55.2	12.2	4.5	1.4

Observation: The first workshop was less successful in obtaining its objectives as perceived by the participants than the following three programs. Approximately 53 per cent of the teachers at the first workshop felt that the program met its objectives while the percentage of the subsequent workshops were 86.1, 89.0, and 86.2 respectively. An average of 81.9 per cent felt the workshops were successful in obtaining their goals while 5.9 per cent felt that they fell short of obtaining their goal. It must be noted that many changes in format, additional printed materials, and better guidelines for the participants were developed for the last three programs as a result of the feedback from the first. This accounts for the difference in the percentages as reported.

9. Please check whichever ONE of these statements is most nearly correct for you.

_____a. I would like another workshop of this type but in greater depth.

_____b. I would not like another workshop in greater depth; the workshop adequately covered the subject.

_____c. I would not like another workshop in greater depth; the workshop was not very good.

		a	b	c
PSC	N	29	0	2
	%	94	0	6
MSC	N	74	7	1
	%	90.4	8.5	1.2
ChSC	N	40	7	1
	%	83.4	14.6	2.1
CaSC	N	49	9	0
	%	84.4	15.6	0
Total	N	192	23	4
	%	87.6	10.5	1.9

Observation: The program has apparently met some of the interests and needs of the industrial arts teachers of the Commonwealth because 87.6 per cent would like to participate in a similar program in greater depth. Ten per cent would not be interested in a similar workshop because they felt this workshop adequately covered the topic. Only 1.9 per cent felt that they would not be interested in another workshop.

Four open-ended statements were offered to the participants for their reaction. The following represents a composite of all the responses of each participant to the statement and the frequency of their appearance.

1. Several good features of this workshop were:

   a. administration of the institute (planning, organization).....(42)

   b. discussion sessions (workshop sessions) small, effective.....(35)

   c. facilities were excellent, convenient, comfortable.....(27)

   d. meals (good, availability, free, convenient).....(22)

   e. opportunity to exchange ideas with other teachers.....(20)

   f. discussion leaders (dynamic, effective, non-I.A.).....(16)

   g. visual aids (excellent, appropriate, informative).....(16)

   h. helped to develop skills in developing good objectives.....(14)

   i. very thought providing, topic relevant, pertinent.....(13)

   j. printed materials (helpful, valuable resource).....(12)

   k. in depth exposure to existing programs.....(12)

   l. insight on how to evaluate objectives.....(9)

   m. presentation of new concepts, very informative.....(8)

   n. learned how to evaluate curriculum.....(8)

   o. location of institute (four dates to choose from).....(8)

   p. sincerity of purpose of institute leaders.....(6)

   q. workshops (had good aims, informative, interesting).....(6)

   r. became more aware of my problems and weaknesses.....(5)

   s. institute successfully met its objectives.....(3)

   t. topics (timely, appropriate, significant).....(3)

   u. opportunity to express my ideas for feedback.....(3)

v. challenged me to do a more effective job.....(2)

w. feel something worthwhile could grow out of institute.....(2)

x. pre-test and post-test a good learning device.....(2)

y. informative - good starting point for curriculum study.....(2)

z. summary presentations by group leaders.....(2)

TOTAL RESPONSES..... 298

2. Several poor features of this workshop were:

a. poor small group leadership.....(19)

b. lack of pre-institute study materials.....(18)

c. too much new information for one day.....(15)

d. weather conditions (extremely hot at California).....(13)

e. vague discussion sessions (poor direction).....(13)

f. not enough time.....(12)

g. discussion leaders lacked industrial arts background.....(10)

h. delay in starting on time.....(9)

i. inadequate background of participants.....(7)

j. time of year (end of school year).....(7)

k. nothing wrong.....(7)

l. discussion sessions did not stay on topic.....(6)

m. poor conditions for A.V. presentation.....(6)

n. insufficient take home materials.....(6)

o. facilities (California State College).....(6)

p. day was too long - no breaks.....(4)

q. no coffee break (California only).....(4)

r. major presentors took too long.....(4)

s. not enough advanced notice of meeting.....(4)

t. general sessions not long enough.....(3)

u. insufficient time to read all the printed material.....(3)

v. lack of understanding of new terminology.....(3)

w. amount of time spent on developing objectives.....(3)

x. objectives were not understood by participants.....(3)

y. too much time on classification of objectives.....(3)

z. not down to earth enough.....(3)

aa. too much outside noise during workshops.....(3)

bb. printed copy of speaker's text not available.....(3)

cc. lack of sufficient conclusions drawn.....(2)

dd. too much time spent in general sessions.....(2)

ee. major presentors not specific enough.....(2)

ff. administrators were not invited.....(2)

gg. not enough discussion time.....(2)

hh. not enough time to express personal opinions.....(1)

ii. terminology unfamiliar at the beginning.....(1)

jj. not acquainted with topic for discussion.....(1)

kk. subject not covered adequately.....(1)

ll. sketchy information provided.....(1)

mm. non-industrial arts speaker.....(1)

nn. too technical for average teacher.....(1)

oo. not enough young teachers present.....(1)

pp. did not relate to problems of I.A. in Pennsylvania.....(1)

qq. sessions too long.....(1)

rr. summary workshop report too long..... .....(1)

ss. Topic not relevant.....(1)

TOTAL RESPONSES.....217

3. In the future, the following changes in format:

a. format was good (small segments).....(21)

b. provide pre-institute materials to enlighten participants...(16)

c. narrower subject area - greater depth.....(16)

d. have discussion leaders prepared better.....(9)

e. have more consultants (one per group).....(7)

f. more time for interaction between participants.....(5)

g. provide more workshop sessions.....(5)

h. provide more break between sessions.....(5)

i. have institute earlier in the school year.....(4)

j. have more printed materials.....(4)

k. more details prior to workshop sessions.....(3)

l. better orientation to the sessions.....(3)

m. keep time schedule.....(3)

n. have open discussion time with leaders.....(3)

o. greater use of multi-media approach.....(2)

p. eliminate second speaker - use time for workshop.....(2)

q. summary reports should be made.....(2)

r. screen discussion questions.....(1)

s. have experts discuss curriculum.....(1)

t. better organization of the participants.....(1)

u. more slides on practical methods in progress.....(1)

[illegible] for discussion sessions.....(1)

[illegible] Summary.....(1)

x. provide a bibliography.....(1)

y. more discussion on I.A. curriculum.....(1)

z. have a shorter day.....(1)

aa. make small discussion groups more informal.....(1)

bb. have smaller discussion groups.....(1)

cc. explain new programs better.....(1)

dd. end earlier in the day.....(1)

ee. later starting time.....(1)

ff. have teachers bring own objectives to institute.....(1)

TOTAL RESPONSES.....125

4. I would suggest the following subject matter for future institutes:

a. evaluation of all industrial arts programs.....(28)

b. develop 2nd and 3rd level objectives.....(20)

c. curriculum development, organization, planning.....(16)

d. course content and activities for the middle school.....(13)

e. course content and activities for the high school.....(11)

f. teaching methods.....(11)

g. new technology and impact on industrial arts.....(8)

h. coordination between school and industry.....(6)

i. implementing our programs in mandated time.....(6)

j. elementary industrial arts.....(6)

k. uniform curriculum for Pennsylvania.....(5)

l. improving the image of industrial arts.....(5)

m. philosophy of industrial arts.....(4)

n. how to determine the needs of students.....(3)

o. research in industrial arts.....(3)

p. updating facilities.....(3)

q. industrial arts for girls.....(2)

r. industrial arts related to special education.....(2)

s. career development.....(2)

t. how to make instructional films.....(1)

u. developing new teaching skills.....(1)

v. how to better effect learner behaviors.....(1)

w. developing objectives for the affective domain.....(1)

x. project method.....(1)

y. counseling.....(1)

z. industrial arts for the deprived and underprivileged.....(1)

aa. how to start adult education.....(1)

bb. role of industrial arts with the V-T schools.....(1)

cc. discipline.....(1)

dd. shop maintenance.....(1)

ee. development of evaluation techniques.....(1)

ff. organizing materials for the low achiever.....(1)

gg. unique contributions of I.A. to youth.....(1)

TOTAL RESPONSES.....167

Part III - Future Needs. One of the major outcomes of this program was the establishment of the need for writing curriculum in terms of behaviorally stated objectives. It is the feeling of state leaders of industrial arts that the following projection of activities present a logical progression to accomplish this need.

1. An Industrial Arts Consortium will be held to identify the basic assumptions for industrial arts education. A rationale and accompanying philosophy will also be developed. Participants will include teacher-educators, supervisors, state supervisors, teachers, and other recognized leaders of industrial arts working together in an attempt to unify the direction of industrial arts in Pennsylvania.

2. A general session, held during the state convention in November 1969, will be devoted to a panel discussion. This discussion will center on research which assesses the layman's views and impressions of industrial arts. Selected recent high school graduates will also be asked to present their impressions of their needs and the relevance of Pennsylvania's industrial arts programs of today to these needs.

3. The topic of interaction analysis will be presented to the membership at the November convention. Drs. John Withall and Robert Ribble of the Pennsylvania State University will discuss their approach in two consecutive general sessions. The intent here is to provide the teacher with a better understanding of the interaction between student and teacher and to provide an objective method analysis.

4. During January 1970, the conference participants and other selected individuals will be asked to respond to a survey questionnaire which will attempt to develop a preferential list of 2nd level (intermediate) objectives for Pennsylvania. Summary reports of the Spring 1969 conference, the Industrial Arts Consortium and the November panel discussion will be included to provide some guidance as to philosophy needs. These are of vital importance when developing intermediate objectives. This form will also solicit the teachers' aid in compiling a comprehensive list of action verbs pertinent to the field of industrial arts which can then be used in writing objectives behaviorally.

5. The state association would like to offer a second program as an affiliate of the AIAA to be held in the spring of 1970. This program would:

   a. Develop, identify and publish a comprehensive list of 2nd level objectives for use as guidelines for interested industrial arts teachers in Pennsylvania.

   b. Interact with leaders of nationally prominent industrial arts programs for the purpose of evaluating their methodology as it may pertain to Pennsylvania's 2nd level objectives.

   c. Provide participants with the technical competencies needed to write 3rd level, instructional objectives in behavioral terms.

We hope that the experiences of this project will provide the participating industrial arts teachers with the desire and skills required to write their own industrial arts curriculum in terms of behaviorally stated instructional objectives. Developing this at the local district

level affords the teacher the opportunity to incorporate conditions unique to his teaching situation i.e., physical facilities, student capabilities, and community philosophy. Necessary complements of these instructional objectives would include: time factor, behaviorally stated objective, conditions, evaluation items, minimum acceptable performance levels, teacher strategies, suggested pupil activities, and recommended instructional aids which would include audio-visual materials.

Published materials would include recommended guidelines for industrial arts curriculum and examples of methods based on behavioral objectives. Both long-range and intermediate behavioral objectives will have been developed and included. Also, sample instructional objectives, including all related aspects, will be printed for many of the 2nd level (intermediate) objectives.

SUMMARY AND RECOMMENDATIONS

This institute was planned and designed to develop the procedures necessary to conduct inservice education programs cooperatively with state associations. Emphasis was placed on the development of model programs which could be used by different states in solving educational problems.

This institute was designed to bring the control of inservice education closer to the teachers. Two beliefs guided the development of the program:

1. Classroom teachers are able to plan and conduct inservice education programs which are designed to improve classroom instruction.

2. Classroom teachers are more receptive to educational change and new ideas when they originate through an educational group they control.

The pilot project was conducted in two phases:

1. An initial planning conference of representatives from industrial arts state associations.

2. Conducting five regional pilot programs in different geographical locations of the nation.

The initial planning conference was held on April 12-13, immediately following the annual convention of the American Industrial Arts Association. The two-day conference permitted representatives from twenty-one states to identify some of their inservice education needs and possible solutions to the problems created by the needs.

Each state made a brief descriptive presentation of the ideas and plans which they felt could produce significant inservice education within their state. Following the presentations, five of the proposals were accepted as the pilot project. Each represented a different need and a different approach to inservice education. The programs selected were:

1. Up-dating the Technical Competencies of Teachers - Colorado

2. Up-grading Teacher Knowledge and Ability to Provide Increased Student Involvement in Industrial Arts Education - Florida

3. Up-grading the Classroom Management Competencies of Teachers - Georgia

4. Up-grading the Leadership Competencies of Teachers - Oregon

5. Up-dating the Curriculum and Professional Competencies of Teachers - Pennsylvania

During and following the conference, the details and plans for conducting the pilot programs were finalized and put into operation.

Technical Competencies - Colorado

This program identified the need in Colorado to introduce new instructional programs and units into the existing school offerings. Two areas of technical competency were selected: power mechanics and industrial mass production. These programs have only limited popularity in Colorado, but have been identified as programs needed to improve and diversify course offerings. Power mechanics was presented as a new program for the industrial arts program. Industrial mass production was presented as a major instructional program for existing metalworking programs.

This program identified a need to bring instruction to the industrial arts teachers in the field. In order to accomphish this, two instructional teams were trained to conduct programs in the geographical regions of the state. The program for the pilot project consisted of two planning conferences plus work periods between the conferences. The two teams developed course outlines, teaching aids and devices, and plans to conduct a series of one week workshops throughout the state.

Classroom teachers, teacher educators, and supervisors were involved in the planning of these one-week workshops. The workshops will be conducted by team members (all classroom teachers) during the 1969-70 school year, as resources permit.

Student Involvement - Florida

The industrial arts teachers of Florida conducted a workshop on this timely subject on April 25, 1969. The problems of student disenchantment with education and the methods of providing students a voice in determining their educational programs were considered. Teachers in attendance considered how they could improve their course offerings and make instruction more relevant to the needs of their students.

Classroom Management Competencies - Georgia

"Efficient management of the industrial arts instructional program" was the theme of the Georgia program. Participants discovered that a considerable amount of time can be wasted by industrial arts teachers who do not plan for efficient handling of materials, record equipment, use and maintenance of tools and materials, etc.

This successful program was conducted on May 1-3, 1969. Following this conference, participants conducted regional meetings in each of the local districts in the state. At these meetings, the district chairman gave a capsule report of the activities at the conference and held discussions on the problems and possible solutions.

As a result of this program, the industrial arts teachers of Georgia are becoming aware of the importance of good classroom management, and the positive effect efficient management has improved instruction, student motivation, and public relations within the school and community.

Leadership Development Competencies - Oregon

The Oregon industrial arts teachers conducted a two-day conference to determine how the Department of Education for Oregon, the Oregon Industrial Education Association, and Oregon State University could work together to develop the leadership potential of Oregon and solve inservice education problems facing the teachers. The conference was conducted on May 23-24, 1969 and attracted industrial arts leaders from all parts of Oregon.

The conference identified the problems facing industrial arts in Oregon and considered how each of the three agencies serving industrial arts could contribute to the solution of these problems. The need for inservice education and methods to implement needed programs within the state was considered as one of the most important problems facing the profession. The solution to this and other problems was considered by work and study groups assembled during the conference.

The work started on May 23-24 will go on during the coming year. Problems identified will be worked on by the three agencies - State Association, State University, and State Department of Education, during the coming year.

Curriculum and Professional Competencies - Pennsylvania

This was the largest of the five pilot programs conducted. It involved conducting four Saturday conferences, one located in each geographical area of Pennsylvania. Over three hundred industrial arts teachers attended one of the four conferences held between May 10 and June 14, 1969.

Each conference emphasized the need for each industrial arts teacher to evaluate and identify the content and structure of his industrial arts program. In order to assist the teacher, each conference identified creative approaches to planning and developing industrial arts programs. During the conference, numerous curriculum plans were considered by the participants. These included the American Industries Project, the Industrial Arts Curriculum Project, The Maryland Plan, and The Maine Plan.

In addition, general curriculum and evaluation procedures were presented to the group. One of the outstanding aspects of the program was the emphasis of preparing course objectives in behavioral terms. For many of the people in attendance, this was their first introduction to the use of behavioral objectives for industrial arts. Teachers were asked to review the objectives of their industrial arts programs, the objectives of their state, and the objectives of the new curriculum proposals in behavioral terms.

Evaluation and Recommendations for the Future

Each of the five pilot programs was evaluated separately. A variety of evaluation techniques were used, including impartial evaluators and questionnaires to all participants. The following points are pertinent to the evaluation of this study and recommendations for the future programs of this type.

1. The evaluation team of each of the five programs considered that their program had been successful in accomplishing the planned objectives. However, they pointed out that the objectives established for their programs were of an introductory or entry level. The educational problems facing teachers can't be solved with a one or two day conference. The best that can be hoped for is a clearer understanding and recognition of the problem, and the development of insights and plans to work towards the solution of the problems. To this extent, each program was a success.

2. Solutions to the problems identified will require additional programs involving the teachers for greater periods of time. The nature of the problem will determine the appropriate resources and time needed. Educational leaders must soon accept the fact that the improvement of classroom instruction must be an on-going process. It is not something that can be accomplished with a single institute, conference, or even summer or full year institutes. Rather, improvement must be made at a gradual and continuous rate. Inservice education programs must be planned and conducted for all educators (supervisors and teacher educators, as well as classroom teachers) on a regular and reoccurring basis.

3. The industrial arts teachers responsible for each program emphasized that this was the pilot project which should lead to a more ambitious program within their state. As a result, the most important recommendation produced by the pilot project is that a major proposal providing inservice education through state and local industrial arts teachers be planned and funded, permitting the continuation of the work of these five (plus other) states.

4. The basic premise that teachers are able to plan and conduct inservice programs was supported. The director and associate director observed that the teachers freely turned to teacher education, supervision, industry and business, for the help they needed. The programs were well planned and involved a variety of resource people from education and other professions.

5. Since planning was conducted through state associations, teachers were receptive to the information presented at each conference. An atmosphere of "lets work together to identify and solve our problems" prevailed. This reception by classroom teachers is possibly the most significant contribution of this format for inservice education. Additional experience and knowledge should be gained with the acquisition of the major grant, based on the results of this pilot project.

APPENDICES

APPENDIX A

Copy of initial Letter to State Associations announcing the receipt of the pilot study grant and requesting them to commence the initial phase of the program.

March 14, 1969

MEMORANDUM

TO: State Association Presidents with information copy to College and University Industrial Arts Departments, State Representatives of AIAA and State Supervisors of Industrial Arts

FROM: Howard S. Decker
Director

The American Industrial Arts Association, through the Appalachian State University, Boone, North Carolina, has received a small pilot study grant from the Bureau of Educational Personnel Development to investigate the effectiveness of industrial arts state associations in conducting inservice training for their constituents. The plan of operation was approved at the beginning of the current week. This grant is a continuation of the former AIAA-ASU Institute program which brought together state association representatives in five regional institutes during the academic year just past.

Please note that this memorandum is also being sent to chairman of industrial arts departments at colleges and universities, state representatives of the AIAA and state supervisors of industrial arts education. It is hoped that your state association will involve these persons in the activities generated under this grant.

Please further note that this grant is a pilot study rather than an operational study, and it is anticipated that the final evaluation of this pilot study will be used as the basis for the justification of a much larger operational grant to extend assistance to the leadership of all state associations during the next academic year.

The rationale of this new pilot EPDA grant is as follows:

1. During the spring of 1969 (April 21 to July 1), the AIAA-ASU Institute will be able to provide to state assoications limited assistance in the area of inservice education. This aid will take the form of providing assistance in the selection of consultants, their expenses and transportation to the training site, assistance in the normal administrative expenses of conducting an inservice training workshop, including duplication

of materials, acquisition of audio-visual aids, secretarial services, mailings, etc., and assistance in the administration of an inservice training program through the directors of the institute (Howard S. Decker and Ralph C. Bohn), etc. Because of the limited funding, it will be impossible for this institute to provide the normal participant's stipend and the transportation of the participants to the training site. It is our hope that this project can materially assist our state associations in improving their current inservice training efforts.

2. The AIAA-ASU Institute will conduct a planning meeting for state association representatives on Saturday afternoon and Sunday morning, April 12 and 13, as a post-convention activity of the annual convention of the AIAA. Through the limited funds available through the EPDA grant, two representatives of each state association may be reimbursed to the extent of $16.00 per day for attendance at these planning sessions. (Two persons for two days at $16.00 = $64.00) No reimbursement for transportation can be provided. It is hoped that this nominal reimbursement will make it possible for your association to send representatives to this important planning meeting. I urge all industrial arts department chairmen at the colleges and universities, state representatives and state supervisors to attend this planning meeting. However, no financial reimbursement can be provided unless you are part of a state association delegation.

3. Each state association should submit to the director (Howard S. Decker) on or before Wednesday, April 9, an outline of the inservice training activity they feel capable of conducting during the spring of 1969. All outlines should be sent to the AIAA National Office until March 25. After that time, outlines should be carried to the convention and presented to the director in Las Vegas. The directors of the institute will meet with individual state delegations to assess their state plans on Thursday and Friday, and, on Saturday, the selected state delegations will be asked to present their plan to the entire state association planning group. It is readily apparent that some state associations may be able to conduct an inservice training workshop in connection with their state association meeting during the spring of 1969. However, many of our state associations have already had their last meeting before the Las Vegas convention, and their efforts may take the following form:

(a) Consideration should be given to a special inservice training workshop of industrial arts teachers within the state, sponsored by the state association and to be conducted between April 21 and July 1.

(b) An outline should be provided of a proposed inservice training meeting to be held in connection with the regular state association meeting in the fall of 1969 or the spring of 1970.

Remember, the purpose of the pilot inservice training workshops and the planning meeting in Las Vegas is to develop an operating grant proposal to be submitted before September 1, 1969, and that it would be ideal if each of our state associations could present to the planning meeting at Las Vegas copies of a proposed plan of inservice training activity. I sincerely hope that your state association will cooperate fully with this plan of operation. It can't lose if your association will:

1. plan an inservice workshop for this spring (April 21 to July 1), and

2. send a delegation of two persons to Las Vegas for the planning meeting on Saturday, April 12, and Sunday, April 13.

HSD:djm

APPENDIX B

List of state association representatives attending the Planning Meeting in Las Vegas, Nevada, on April 12-13, 1969. Persons listed alphabetically by states they represented.

LIST OF STATE ASSOCIATION REPRESENTATIVES ATTENDING THE MEETING IN LAS VEGAS, NEVADA, ON APRIL 12-13, 1969.

[illegible] J. Bazzetta
[illegible] Center
[illegible] East 10[illegible] St.
Tucson, Arizona [illegible]7

Miguel C. Padilla
Pueblo High School
Tucson, Arizona 85715

Rodney Anderson
1821 S. Wolcott Ct.
Denver Colorado 80219

Sherwin D. Powell, Head
Industrial Arts Department
William J. Palmer High School
405 N. Weber Street
Colorado Springs, Colorado 80902

James Bignell
University of Tampa
Tampa, Florida 33606

Santa Randazzo
1411 West Linebaugh
Tampa, Florida 33612

Ralph V. Steeb
State Consultant
State Department of Education
Tallahassee, Florida 32303

Kenneth Wood
Post Office Box 96
Lake Butler, Florida 32054

Sam Yost
5117 Longfellow
Tampa, Florida 33609

Thomas R. Couey
Minshew Road
Sannon, Georgia 30172

Samuel L. Powell
State Department of Education
State Office Building
Atlanta, Georgia 30341

Lawrence Zane
2831 Poelus St.
Honolulu, Hawaii 96822

Ronald M. Frank
944 West 72nd Street
Indianapolis, Ind. 46260

Thomas Kruger
2000 W. Wildin Avenue
Goshen, Indiana 4652[illegible]

N. R. Ashbaugh
West 15th Avenue
Emporia, Kansas 66801

Larry Dunn
407 S. Goode
Columbus, Kansas 66725

Chad Middleton, Jr.
521 Orchard Deive
Elizabethtown, Kentucky 42701

Harold H. Bretz, Jr.
3557 Metairie Hghts.
Metairie, Louisiana 70002

Andrew H. Gasperecz
674 Princewood Court
Baton Rough, Louisiana 70806

Paul H. Sepulvado
329 Berry Street
Bossier City, Louisiana 71010

Linwood A. Abbott
20 Allen Street
Bath, Maine 04530

George S. Ange
42 Fairfield Street
Saco, Maine 04072

James F. O'Sullivan
27 South Cotton Street
Leominster, Massachusetts 01453

Edward Butterworth
Rickmyer Road
Rome, New York 13440

Robert B. Gates
State Supervisor, Ohio
Room 606, State Office Building
Columbus, Ohio 43221

Norman J. Rex
310 South Gilvert St.
Ada, Ohio 45810

Joseph E. Zupancic
2095 Kentwell Road
Columbus, Ohio 43221

Ivan C. Curkert
6265 N.W. Mountain View Drive
Corvallis, Oregon 97330

Dick Embree
2160 Fiarway Loop
Eugene, Oregon 97401

James Grossnicklaus
Route 1, Box 72
Shedd, Oregon 97377

Edward Kabakjian
532 Gen. Sullivan Boulevard
Washington Crossing, Pa. 18977

Richard A. Long
9596 Meadow Road
Auison Park, Pa. 15101

Lambert K. Sailer
133 Clarma Avenue
Havertown, Pa. 19083

William Velez Cuevas
2108 Onfala St.
Reparto Apolo
Rio Piedras, Puerto Rico 00936

Manual A. Hernandez
463 Muniz Souffront St.
Las Maestros
Rio Piedras, Puerto Rico 00936

Edward Bzowski
Fountain Spring Lane
Johnston, Rhode Island 02919

Douglas T. E. Foster
Rhode Island College
600 Mt. Pleasant Avenue
Providence, Rhode Island 02908

Ronald L. Foy
Snyder High School
Snyder, Texas 79549

Curtis O. Oliphant
Deer Park High School
208 Ivy
Deer Park, Texas 77536

Robert L. Morse
RFD No. 1
Woodstock, Vermont 05091

Wendell K. Allen
East 2608 Central
Spokane, Washington 99207

Jere M. Cary
8913 192nd S.W.
Edmonds, Washington 98020

C. W. Cecil
5915 Mahood Drive
Huntington, West Va. 35705

APPENDIX C

List of Industrial Arts Pilot Study personnel and Initial Letter of Invitation - Colorado.

INDUSTRIAL ARTS INSERVICE EDUCATION - PILOT STUDY

PERSONNEL

Coordinator - W. B. Landon - Industrial Arts Department, Englewood High School, 3800 So. Logan St., Englewood, Colorado 80110

Evaluator - Joseph S. Flierl - Consultant, Secondary Education, Colorado, Department of Education, State Office Building, Colfax at Sherman, Denver, Colorado 80203

Media Specialist - Lorna Borman - Englewood High School, 3800 So. Logan St., Englewood, Colorado 80110

Secretary - Beverly Dransfeldt - Englewood Public Schools, 4101 So. Bannock St., Englewood, Colorado 80110

- -

AREA OF MASS PRODUCTION

Team Leader

Dr. F. Morris Johnson - Industrial Arts Department, Colorado State College, Greeley, Colorado 80631

Field Team

Arlen Beamer - (Western) Grand Junction Junior High School, Grand Junction, Colorado 81501

Kenneth E. Olson - (Metropolitan) Baseline Junior High School, Boulder, Colorado 80302

Charles Dalvit - (Southern) Centennial High School, Pueblo, Colorado 81003

AREA OF POWER MECHANICS

Team Leader

Ray Schuette - Carmody Junior High School, 2050 So. Kipling St., Denver, Colorado 80227

Field Team

Leonard Vance - (Southern) La Junta High School, La Junta, Colorado 81050

George Field - (Western) Montrose Junior High School, Montrose, Colorado 81401

Roland Ray - (Metropolitan) West High School, 951 Elati Street, Denver, Colorado 80204

3800 South Logan Street
Englewood, Colorado 80110

Mr. Kenneth E. Olson
Industrial Arts Department
Baseline Junior High School
Boulder, Colorado 80302

Dear Ken:

Rod Anderson has made my job much easier by contacting you relative to serving as Field Team member for the Industrial Arts Inservice Education Pilot Study which is being conducted by the Colorado Industrial Arts Association. It is my understanding that you will be a member of the Field Team in the area of Mass Production during the pilot study.

On behalf of the CIAA, I want to thank you for accepting this responsibility.

I don't know how much Rod told you about the study, therefore it is somewhat difficult for me to determine the amount of information necessary in this letter.

There will be two one-day sessions for all participants in the study. The first will be held on Saturday, May 10, and the second on Saturday, June 7. Both meetings will be in the Planning Center of the Industrial Arts Department, Englewood High School at the above address. We will convene at 9:00 A.M. and work as long as necessary - no later than 5:00 P.M. I will arrange for the participants to have lunch at a local restaurant or cafeteria. Each person will pay for his lunch.

The two areas of industrial arts to be covered in the pilot study are (1) power mechanics and (2) mass production. At the May 10 meeting, we will (1) attempt to explain the background and structure of the study, (2) discuss the expected outcomes, (3) determine the content and teaching materials necessary to attain the goals, and (4) structure the second session.

You were chosen as a member of the Field Team in Mass Production because of your experience, background and knowledge in this phase of industrial arts education. You will spend the major portion of the first day with your Team Leader (Dr. Morris Johnson) and the other two Field Team members.

Please bring to this meeting any teaching materials that you use in your classes such as transparencies, models, mock-ups, etc. A media specialist will be present to provide consultation for the Team Leaders and Field Team members, to correlate the instructional aids that are furnished by the participants, and to develop these materials for utilization at the second meeting and any future sessions. Each Field Team member is expected to conduct an inservice workshop in his geographic area during the fall of 1969.

A secretary will be available to record the discussion and activity of our spring meetings. She will also be responsible for the reproduction of necessary printed materials.

There will be approximately twelve persons involved in the pilot study. A pilot study grant makes it possible to pay each of these people $100.00 for his services. Transportation expense will be paid at the rate of 8¢ per mile to the people living outside the Denver metropolitan area.

If you have never visited the Industrial Arts Department of Englewood High School, you will need directions. From U. S. 285 go south two blocks on Logan Street. Turn east on Lehigh Avenue and you will be there.

If you have questions, please feel free to call me at 761-2455 (school) or 781-4758 (home).

Thanks again for your interest and involvement in this pilot study.

Sincerely,

W. B. Landon, Coordinator,
Industrial Arts Inservice
Education Pilot Study

APPENDIX D

Agenda for Inservice Education on May 10, 1969 at Colorado.

PILOT STUDY - INDUSTRIAL ARTS INSERVICE EDUCATION

May 10, 1969

Industrial Arts Department
Englewood High School

1. Introductions
2. Background of Pilot Study
3. AIAA-ASU Institutes - Dr. Ralph C. Bohn
4. Purposes of Pilot Study
5. Directions to Team Leaders and Team Members
6. Divide into Groups and Work
7. Lunch - 12:15, Wyatt's Cafeteria, Cinderella City
8. More Work
9. Progress reports

APPENDIX E

Directions to Team Leaders and Field Teams - Colorado.

PILOT STUDY - INDUSTRIAL ARTS INSERVICE EDUCATION

May 10, 1969

Industrial Arts Department
Englewood High School

Directions to Team Leaders and Field Teams

1. Determine the content or subject matter that you will cover when you conduct a workshop for your constituents in Industrial Arts in your geographic area of Colorado.

2. Examine different approaches to presenting the material in inservice workshops and select the approach that seems most practical to the area team.

3. Make your program flexible. Develop units that could be presented in 3, 6, 9, 12 or even 30 hour workshops.

4. Examine the teaching aids that you have found effective in your programs and select those that will best supplement your presentations in a workshop situation. Also, specify the teaching aids that can be produced or procured by the media specialist.

5. Organize and provide copy for materials that can be developed and reproduced by the secretary of the Pilot Study.

APPENDIX F

Letter from Wm. B. Landon and evaluation letter from Joseph Flierl to members of the Colorado Committee, with enclosures.

May 29, 1969

Mr. Kenneth Olson
Baseline Junior High School
Boulder, Colorad- 80302

Dear Kenneth:

This letter is to remind you of the meeting of the Industrial Arts Inservice Education Pilot Study on Saturday, June 7, 1969, at the Englewood High School Industrial Arts Department. We will begin at 9:00 a.m. and work as long as is necessary.

It is anticipated that both teams will need the forenoon for finalizing their programs, organizing materials and gathering loose ends.

We plan to have lunch at the same cafeteria.

Each team will, at a convenient time during the afternoon, be asked to present at least an overview of their program plans along with teaching materials they have prepared and developed for use in a workshop situation.

Work is progressing on the teaching materials that you requested and most everything should be completed by June 7.

Enclosed is a memorandum from Mr. Flierl. Please give this some thought before Saturday so that you can assist with the evaluation. Also enclosed is an expense voucher. Please fill it out in triplicate and bring it Saturday.

If it is convenient for you to share rides to Englewood, please do so. It will help the budget.

Best regards,

Wm. B. Landon
Pilot Study Coordinator

WBL:bd

Enclosures

May 28, 1969

MEMBERS OF THE COMMITTEE:

As we indicated at the May 10 meeting at Englewood High School, we would hope that an in-depth evaluation of this Pilot Study Program would provide valuable data for requesting additional funds for more inservice projects. We would like to assume that inservice education of this type will cause change in teacher behavior and that it will, therefore, bring about a change in classroom curriculu, content. Consider, if you would, your own personal convictions on answers for these kinds of questions:

1. How do people change?
2. How do teachers change their personal approach to classroom decisions?
3. What do we want changed about present classroom teachers' decision making?
4. What are the needs of teachers in the field in the area of Industrial Arts curriculum?
5. How do students learn?
6. What do we want teachers to do to cause changes in students?
7. How can inservice education implement changes in Industrial Arts education in Colorado?

Answers to these kinds of questions are paramount if we are to establish criteria for measuring success of the Pilot Program in the field.

Would you come to the June 7 meeting prepared to respond to the evaluative criteria indicated below:

1. Processes of organization of the Pilot Study.
2. Processes of planning of the content and methodology of the inservice sessions.
3. Processes of implementation of the project in the field.
4. Processes of evaluation of the outcomes.

Is this a big enough order?

Sincerely,

Joseph Flier
Evaluator

JF:bd

AIAA-ASU PILOT STUDY
INDUSTRIAL ARTS INSERVICE EDUCATION

EXPENSE VOUCHER

May 10, 1969 Meeting

Mileage @ 8¢ per mile $_____

June 7, 1969 Meeting

Mileage @ 8¢ per mile $_____

- - - - - - - - - - -

Transportation expense will be paid to persons living outside the Denver metropolitan area.

- - - - - - - - - - -

Materials $_____
(please itemize)

_____

_____

_____

_____

_____

Other expense $_____

Total $_____

Member's Signature_____

Address_____

Coordinator's Signature_____

PILOT STUDY - INDUSTRIAL ARTS INSERVICE EDUCATION

June 7, 1969

Industrial Arts Department
Englewood High School

1. Expense Voucher
   a. Social Security Numbers
2. Instructional Materials for Workshops
   a. Power Mechanics
   b. Mass Production
3. Implementation of Inservice Education Programs - Fall, 1969
4. Work in Teams - Organize Teaching Materials, etc.
5. Lunch - 12:15, Wyatt's Cafeteria, Cinderella City
6. More Work (if necessary)
7. Presentations by Teams
8. Evaluation of Pilot Study - Mr. Flierl
9. Inservice Education for 1970-1971
   a. Additional instructional areas

APPENDIX G

Evaluation Sheet and Questionnaire - Colorado.

AIAA - ASU
PILOT STUDY PROPOSAL

Evaluation Sheet

The six objectives of the pilot proposal are:

1. To provide a model for inservice education in Colorado with implications for other states.

2. To design a model which could be administered through the existing structure of the state association.

3. To utilize the expertise of teachers who have attended NDEA Title XI Institutes.

4. To decentralize inservice education experiences by taking the program to where the action is - the local laboratory.

5. To provide experiences for teachers in skill areas not readily available to them.

6. To maximize the contribution of teacher educators and state teacher-training institutions.

What are your reactions to the project as described through these objectives?

Do you have any evidence (or feelings) to support this type of inservice project as compared to other types in current operation?

React to the two planning sessions held to prepare the inservice packets. Was time adequate? Was the structure appropriate? What would improve these sessions?

Describe the outcomes (student-teacher program) expected as a result of in-the-field workshops conducted through this project.

If this project is funded extensively in the future what procedures would you change in the planning and implementing phases?

APPENDIX H

Industrial Arts Inservice Education Program Day by Day Outline - Georgia

INDUSTRIAL ARTS INSERVICE EDUCATION PROGRAM

LABORATORY ORGANIZATION AND MANAGEMENT

May 1 - 3, 1969
Rock Eagle 4-H Center, Eatonton, Georgia
Off-Stage Conference Room

Thursday, May 1. 1969

7:00 - 10:00 P.M.	Registration and Unstructured Discussion Groups

Friday, May 2, 1969

7:30 A.M.	Breakfast
9:00 - 12:15	First Session Presiding - Thomas Couey, Project Coordinator
9:00 - 9:30	Orientation and Overview of Inservice Project
9:30 - 10:15	Action Program
10:15 - 10:30	Break
10:30 - 11:30	Orientation to Phase I of Project
11:30 - 12:15	"Acquisition of Materials, Supplies, and Equipment" Consultant - Gen. Eli White, Supervisor of Equipment and Inventory Atlanta Public Schools
12:15 - 1:30	Lunch
1:30 - 2:30	GEA General Session
2:30 - 5:30	Second Session Presiding - Thomas Couey, Project Coordinator
2:30 - 3:00	"Maintenance of Laboratory Tools and Equipment"

Consultant
Mr. Bill Redmond
William J. Redmond Equipment Co.
Atlanta, Georgia

3:00 - 3:45 "Color and Environment"
Consultant
Mr. M. R. Edwards
Architectural Representative
Pittsburgh Plate Glass, Inc.
Atlanta, Georgia

3:45 - 4:00 Discussion and Questions
Leader
Raymond Bowen
Assistant Professor
Berry College
Rome, Georgia

4:00 - 4:15 Break

4:15 - 5:30 Detail Planning for District Inservice Programs - Thomas Couey, Project Coordinator

6:00 - 7:00 Dinner

7:00 - 8:00 District Chairmen Meet with GEA District Directors

8:00 - 10:00 Third Session
Presiding - Thomas Couey

8:00 - 8:45 "Effecience and an Overview of Time and Motion Study"
Consultant
Dr. Thomas Sadosky
Assistant Professor
School of Industrial Engineering
Georgia Institute of Technology
Atlanta, Georgia

8:45 - 9:00 Questions and Discussion

9:00 - 10:00 General Discussion and Reaction to All Presentations
Leader
Samuel L. Powell
Industrial Arts Consultant
Georgia Department of Education
Atlanta, Georgia

Saturday, May 3, 1969

7:30 A. M.	Breakfast
8:30 - 10:00	Fourth Session Presiding - Thomas Couey Project Coordinator
8:30 - 9:15	"Organization and Layout of I. A. Facilities" Consultant Dr. O. S. Harrison Head, Industrial Arts Department University of Georgia Athens, Georgia
9:15 - 10:00	"Safety in I. A. Laboratories" Consultant Dr. J. N. Luton Head, Industrial Arts Department Berry College Rome, Georgia
10:00 - 10:30	Break
10:30 - 12:00	District Chairmen and Officer Orientation Presiding - Jim Bray, Past President
12:00 - 1:00	Lunch
1:00 - 4:00	Fifth Session Presiding - Thomas Couey, Project Coordinator
1:00 - 1:45	"Organization of Records Systems and Procedures for Industrial Arts Labs" Consultant Dr. Keith Hickman Assistant Professor of Drafting and Design Division of Industrial Technology Georgia Southern College Statesboro, Georgia
1:45 - 2:15	Discussion and Reaction to Presentations Leader Samuel L. Powell Industrial Arts Consultant Georgia Department of Education Atlanta, Georgia

2:15 - 2:30	Break
2:30 - 4:00	Conference Summation Leader Thomas Couey, Project Coordinator